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HARRITY SNYDER, LLP  
11350 Random Hills Road  
SUITE 600  
FAIRFAX, VA 22030

EXAMINER
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WILSON, ROBERT W

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2619

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/665,349

Applicant(s)

WILLIS ET AL.

Examiner

Robert W. Wilson

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9/25/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 46-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 46-69 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

*Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 46-47, 52-53, 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKeown (6,647,019) in view of Ohara (U.S. Patent No.: 6,314,097)

Referring to claim 46, McKeown teaches: A device (carrier class packet switch per col. 1 lines 10 to col. 2 line 38) comprising:

a demultiplexer configured to receive a channelized synchronous optical network (SONET) data stream and separate channelized SONET data stream into constituent tributary data streams (The carrier class packet switch has line card which performance framing an inherently performs deframing in order to carry packet over SONET and ATM over SONET. In order for the Packet over SONET and ATM over SONET to be sent the streams would inherently be channelized and the packet and the ATM would be constituent data streams in channels per col. 1 line 10 to col. 2 line 38) the tributary streams including:

packet over SONET tributary data streams (Packet over SONET per col. 1 line 10 to col. 2 line 38) and an asynchronous transfer mode (ATM) tributary data stream (ATM over SONET per col. 1 line 10 to col. 2 line 38) and a demultiplexer with the channelized SONET data stream (The carrier grade switch has a framer or deframe or demultiplexer which separates the POS and ATM over SONET into channelized SONET data streams per col. 1 line 10 to col. 2 line 38)

McKeown does not expressly call for: line card coupled to a demultiplexer (The Line card of McKeown performs both of these functions.

Ohara teaches: line card coupled to a demultiplexer (Line terminator which is optical to electrical converter or line card which is separate from the demultiplex (dmux) per Figure 5 and per col. 2 lines 59 to col.3 line 35)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the line card coupled to the demultiplexer of Ohara in place of the line card of McKeown which performs both functions in order to build a system in which the optical to electrical converter can be replaced separately from the demultiplexer in the event of a failure of either component thus making the repair of the unit easier.

In addition McKeown teaches:

Regarding claim 47, wherein the data stream is received over a single optical fiber (WDM with channels on an optical Fiber per col. 1 line 25 to 30)

Regarding claim 52, wherein the tributary data streams additionally include:

A composite tributary data stream that includes a POS tributary data stream and an ATM tributary data stream (The reference teaches carrying both POS and ATM over SONET so there would inherently be a data stream for both or composite per col. 1 line 10 to col. 2 line 38)

Referring to claim 53, McKeown teaches: one or more devices in a data processing environment (carrier class packet switch or one or more devices per col. 1 lines 10 to col. 2 line 38) comprising:

A multiplexer configured to receive tributary data streams (Carrier class packet switch has a framer as well as deframer to receive tributary data streams which are inherent to SONET per col. 1 lines 10 to col. 2 line 38) including

Packet over synchronous optical network (POS) tributary data stream (packet over SONET and ATM over SONET in tributary data streams per col. 1 line 10 to col. 2 line 38)

An asynchronous transfer mode (ATM) tributary data stream (ATM over SONET and ATM over SONET in tributary data streams per col. 1 line 10 to col. 2 line 38)

The multiplexer being further configured to combine the tributary data streams in to a single channelized synchronous optical network (SONET) data stream ( The carrier grade packet switch has a framer or multiplexer. Combined tributary data streams are inherently part of SONET standard)

McKeown does not expressly call for: line card coupled to a demultiplexer (The Line card of McKeown performs both of these functions.

Ohara teaches: line card coupled to a demultiplexer (Line terminator which is optical to electrical converter or line card which is separate from the demultiplex (dmux) per Figure 5 and per col. 2 lines 59 to col.3 line 35)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the line card coupled to the demultiplexer of Ohara in place of the line card of McKeown which performs both functions in order to build a system in which the optical to electrical converter can

be replaced separately from the demultiplexer in the event of a failure of either component thus making the repair of the unit easier.

In addition McKeown teaches:

Regarding claim 58, wherein the tributary data streams additionally include: a composite tributary data stream that includes a POS tributary data stream and an ATM tributary data stream (The reference teaches carrying both POS and ATM over SONET so there would inherently be a data stream for both or composite per col. 1 line 10 to col. 2 line 38)

3. Claims 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKeown (6,647,019) in view of Ohara (U.S. Patent No.: 6,314,097) further in view of G.707

Referring to claim 48, the combination of McKeown and Ohara teach: the device of claim 46 and McKeown teaches wherein the tributary data stream includes a point to point protocol (POS inherently includes PPP protocol per col. 1 line 10 to col. 2 line 38)

The combination of McKeown and Ohara do not expressly call for: DS tributary.

G.707 teaches: DS tributary (1.544 per 6.1 Pg 7) .

It would have been obvious to add the DS tributary of the G.707 to the PPP packet to the SONET of the combination of McKeown and Ohara in order to be standards compliant and build a system which is interoperable with legacy SONET systems.

Referring to claim 49, the combination of McKeown and Ohara teach: the device of claim 46 and McKeown teaches and channelized SONET data streams per col. 1 line 10 to col. 2 line 38

The combination of McKeown and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of the combination of McKeown and Ohara in order to be standards compliant and build a system which is interoperable with legacy SONET systems.

Referring to claim 50, the combination of McKeown and Ohara teach: the device of claim 46 and McKeown teaches and POS tributary data streams per col. 1 line 10 to col. 2 line 38

The combination of McKeown and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

The G.707 teaches: optical carry rate in accordance with the SONET standard per Para 3 page 3-1.

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of the combination of McKeown and Ohara in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 51, the combination of McKeown and Ohara teach: the device of claim 46 and McKeown teaches and ATM tributary data streams per col. 1 line 10 to col. 2 line 38

The combination of McKeown and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

The G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of G.707 to the SONET of the combination of McKeown and Ohara in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 55, the combination of McKeown and Ohara teach: the one or more devices of claim 53 and McKeown teaches and channelized SONET data streams per col. 1 line 10 to col. 2 line 38

The combination of McKeown and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 SONET to the SONET of the combination of McKeown and Ohara in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 56, the combination of McKeown and Ohara teach: the one or more devices per claim 53 and McKeown teaches and POS tributary data streams per col. 1 line 10 to col. 2 line 38

The combination of McKeown and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of the combination of McKeown and Ohara in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 57, the combination of McKeown and Ohara teach: the one or more devices of claim 53 and McKeown teaches and ATM tributary data streams per col. 1 line 10 to col. 2 line 38

The combination of McKeown and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the SONET Common Generic Criteria SONET to the SONET of the combination of McKeown and Ohara in order to be standards compliant and build a system which is inoperable with legacy SONET systems

4. Claims 60-63 & 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over

McKeown (6,647,019) in view of SONET Transport Systems Common Generic Criteria

Referring to claim 60, McKeown teaches the forwarding node of claim 59 and wherein the tributary data stream includes a point to point protocol (POS inherently includes PPP protocol per col. 1 line 10 to col. 2 line 38)

McKeown does not expressly call for: DS tributary.

G.707 teaches: DS tributary per (1544 per Pg 7).

It would have been obvious to add the DS tributary of the G.707 to the PPP packet of McKeown in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 61, McKeown teaches: the forwarding node of claim 59 and channelized SONET data streams per col. 1 line 10 to col. 2 line 38

McKeown does not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of McKeown in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 62, McKeown teaches: the forwarding node of claim 59 and POS tributary data streams per col. 1 line 10 to col. 2 line 38

McKeown does not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of McKeown in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 63, McKeown teaches: the forwarding node of claim 59 and ATM tributary data streams per col. 1 line 10 to col. 2 line 38

McKeown does not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET G.707 to the SONET of McKeown in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 67, McKeown teaches: the device of claim 65 and channelized SONET data streams per col. 1 line 10 to col. 2 line 38

McKeown does not expressly call for: optical carry rate in accordance with the SONET standard.



G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of McKeown in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 68, McKeown teaches: the device of claim 65 and POS tributary data streams per col. 1 line 10 to col. 2 line 38

McKeown does not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per Para 3 page 3-1.

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of McKeown in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 69, McKeown teaches: the device of claim 65 and ATM tributary data streams per col. 1 line 10 to col. 2 line 38

McKeown does not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per Para 3 page 3-1.

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of McKeown in order to be standards compliant and build a system which is inoperable with legacy SONET systems

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 59 & 64-66 are rejected under 35 U.S.C. 102(E) as being anticipated by McKeown (U.S. Patent No.: 6,647,019)

Referring to Claim 59, McKeow teaches: a forwarding node for directing data in a data network the forwarding node (Carrier grade packet switch) including:

Means for creating tributary synchronous optical network (SONET) data streams the tributary SONET data streams (The carrier frame packet switch has a framer which will create tributary data streams which are inherently part of SONET per col. 1 lines 10 to col. 2 line 38)

A packet over synchronous optical network (POS) tributary data streams (The carrier frame packet switch has a framer or means which will create POS tributary data streams per col. 1 lines 10 to col. 2 line 38)

An asynchronous transfer mode (ATM) tributary data stream (The carrier frame packet switch has a framer or means which will create ATM tributary data streams per col. 1 lines 10 to col. 2 line 38)

And means for transmitting the tributary SONET data stream as a single SONET data stream (The line card has an external interface for external line per col. 2 lines 10 or means for transmitting the tributary SONET data as a single SONET stream (col. 1 line 25 to 30))

In addition McKeown teaches:

Regarding claim 64, wherein the tributary data streams additionally include:

A composite tributary data stream that includes a POS tributary data stream and an ATM tributary data stream (The reference teaches carrying both POS and ATM over SONET so there would inherently be a data stream for both or composite per col. 1 line 10 to col. 2 line 38)

Referring to Claim 65 McKeow teaches: a method for transmitting information over a fiber optic cable (Carrier grade packet switch perform the method per col. 1 lines 10 to col. 2 line 38) the method comprising:

Constructing a packet over synchronous optical network data stream ( (The carrier frame packet switch has a framer which constructs packet over synchronous optical network data streams per col. 1 lines 10 to col. 2 line 38)

Constructing an asynchronous transfer mode (ATM) data stream (The carrier frame packet switch has a framer which constructs ATM over synchronous optical network data streams per col. 1 lines 10 to col. 2 line 38)

Combining the POS data stream and the ATM data stream into a single channelized synchronous optical network (SONET) data stream (The framer combines the POS and ATM into a SONET which is a single channelized synchronous optical data stream which is sent over WDM per col. 1 line 10 to col. 2 line 38)

And transmitting the tributary SONET data stream as a single SONET data stream (The line card has an external interface for external line per col. 2 lines 10 or means for transmitting the tributary SONET data as a single SONET stream (col. 1 line 25 to 30))

In addition McKeown teaches:

Regarding claim 66, wherein the data stream is received over a single optical fiber (WDM with channels on an optical Fiber per col. 1 line 25 to 30)

### ***Double Patenting***

7. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 46, 52-53, & 58 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,3,5, & 8 of U.S. Patent No. 6,658,021 in view of Ohara (U.S. Patent No.: 6,314,097)

Referring to claim 46, U.S. Patent 6,658,021 teaches: A device (Forwarding node per claim 1 ) comprising:

a demultiplexer configured to receive a channelized synchronous optical network (SONET) data stream and separate channelized SONET data stream into constituent tributary data streams (The decapsulation logic delineates or separates into multiple formats (tributaries of constituent tributary data per claim 1) the tributary streams including:

packet over SONET tributary data streams (Claim 5 or Claim 8) and an asynchronous transfer mode (ATM) tributary data stream (Claim 3)

U.S. Patent No.: 6,658, 021 does not expressly call for: line card coupled to a demultiplexer

Ohara teaches: line card coupled to a demultiplexer (Line terminator which is optical to electrical converter or line card which is separate from the demultiplex (dmux) per Figure 5 and per col. 2 lines 59 to col.3 line 35)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the line card coupled to the demultiplexer of Ohara in place of the input port and decapsulation logic which performs both functions in order to build a system in which the optical to electrical converter can be replaced separately from the demultiplexer in the event of a failure of either component thus making the repair of the unit easier.

In addition U.S. Patent No.: 6,658, 021 teaches:

Regarding claim 52, wherein the tributary data streams additionally include:

A composite tributary data stream that includes a POS tributary data stream and an ATM tributary data stream (claims 1, 3, 5, & 8)

Referring to claim 53, U.S. Patent 6,658,021 teaches: one or more devices in a data processing environment (Forwarding node per claim 1) comprising:

A multiplexer configured to receive tributary data streams (The decapsulation logic or multiplexer delineates or separates into multiple formats (tributaries of constituent tributary data per claim 1)

Packet over synchronous optical network (POS) tributary data stream (Claim 5 or Claim 8)

An asynchronous transfer mode (ATM) tributary data stream (Claim 3)

The multiplexer being further configured to combine the tributary data streams in to a single channelized synchronous optical network (SONET) data stream (Decapsulation Logic combines tributary data streams are inherently part of SONET standard per claim 1)

U.S. Patent 6,658,021 does not expressly call for: line card coupled to a demultiplexer (The forwarding node performs both of these functions.

Ohara teaches: line card coupled to a demultiplexer (Line terminator which is optical to electrical converter or line card which is separate from the demultiplex (dmux) per Figure 5 and per col. 2 lines 59 to col.3 line 35)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the line card coupled to the demultiplexer of Ohara in place of the input port and decapsulation logic which performs both functions in order to build a system in which the optical to electrical converter can be replaced separately from the demultiplexer in the event of a failure of either component thus making the repair of the unit easier.

In addition U.S. Patent No.: 6,658, 021 teaches:

Regarding claim 58, wherein the tributary data streams additionally include:

A composite tributary data stream that includes a POS tributary data stream and an ATM tributary data stream (claims 1, 3, 5, & 8)

10. Claims 59 & 64-65 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5, & 8 of U.S. Patent No. 6,658,021

Referring to Claim 59, U.S. Patent 6,658,021 teaches: a forwarding node for directing data in a data network the forwarding node (Forwarding node per claim 1) including:

Means for creating tributary synchronous optical network (SONET) data streams the tributary SONET data streams (Decapsulation logic per claim 1 )

A packet over synchronous optical network (POS) tributary data streams (claim 5 or claim 8)

An asynchronous transfer mode (ATM) tributary data stream (claim 4)

And means for transmitting the tributary SONET data stream as a single SONET data stream (input port for receiving would be obvious to have an transmit port for transmitting)

U.S. Patent 6,658,021 does not expressly call for: means for transmitting

U.S Patent 6,658,021 teaches: input port for receiving

It would have been obvious to one of ordinary skill in the art at the time of the invention to add a port for transmitting because a node requires a transmitting device in order to receive.

In addition U.S. Patent No.: 6,658, 021 teaches:

Regarding claim 64, wherein the tributary data streams additionally include:

A composite tributary data stream that includes a POS tributary data stream and an ATM tributary data stream (claims 1, 3, 5, & 8)

Referring to Claim 65, U.S. Patent 6,658,021 teaches: method for transmitting information over a fiber optic cable (Forwarding node perform the method) the method comprising:

Constructing a packet over synchronous optical network data stream (decapsulation logic per claim 1)

Constructing an asynchronous transfer mode (ATM) data stream (decapsulation logic per claim 1)

Combining the POS data stream and the ATM data stream into a single channelized synchronous optical network (SONET) data stream (Decapsulation logic per claim 1 combines the POS (claim 5 or claim 8) to the ATM (Claim 4)

U.S. Patent 6,658,021 does not expressly call for: transmitting the tributary SONET data stream as a single SONET data stream

U.S. Patent 6,658,021 teaches: input port for receiving the tributary SONET data stream in a single SONET data stream per claim 1.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add a port for transmitting because a node requires a transmitting device in order to receive.

11. Claims 48-51 & 55-57 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5, & 8 of U.S. Patent No. 6,658,021 in view of Ohara (U.S. Patent No.: 6,314,097) further in view of SONET Transport Systems Common Generic Criteria

Referring to claim 48, the combination of U.S. Patent No.: 6,658,021 and Ohara teach: the device of claim 46 and U.S. Patent No.: 6,658,021 teaches wherein the tributary data stream includes a point to point protocol (POS inherently includes PPP protocol per claim 8)

The combination of U.S. Patent No.: 6,658,021 and Ohara do not expressly call for: DS tributary.

The SONET Common Generic Criteria teaches: DS tributary per Para 3 page 3-1.

It would have been obvious to add the DS tributary of the SONET Common Generic Criteria to the PPP packet to the SONET of the combination of U.S. Patent No.: 6,658,021 and Ohara in order to be standards compliant and build a system which is interoperable with legacy SONET systems.

Referring to claim 49, the combination of U.S. Patent No.: 6,658,021 and Ohara teach: the device of claim 46 and U.S. Patent No.: 6,658,021 teaches and channelized SONET data streams (claim 1)

The combination of U.S. Patent No.: 6,658,021 and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

The SONET Common Generic Criteria teaches: optical carry rate in accordance with the SONET standard per Para 3 page 3-1.

It would have been obvious to add the optical carry rate of the SONET standard of the SONET Common Generic Criteria SONET to the SONET of the combination of U.S. Patent No.: 6,658,021 and Ohara in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 50, the combination of U.S. Patent No.: 6,658,021 and Ohara teach: the device of claim 46 and U.S. Patent No.: 6,658,021 teaches and POS tributary data streams per claim 1

The combination of U.S. Patent No.: 6,658,021 and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

The SONET Common Generic Criteria teaches: optical carry rate in accordance with the SONET standard per Para 3 page 3-1.

It would have been obvious to add the optical carry rate of the SONET standard of the SONET Common Generic Criteria SONET to the SONET of the combination of U.S. Patent No.: 6,658,021 and Ohara in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 51, the combination of U.S. Patent No.: 6,658,021 and Ohara teach: the device of claim 46 and McKeown teaches and ATM tributary data streams per col. 1 line 10 to col. 2 line 38

The combination of U.S. Patent No.: 6,658,021 and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

The SONET Common Generic Criteria teaches: optical carry rate in accordance with the SONET standard per Para 3 page 3-1.



It would have been obvious to add the optical carry rate of the SONET standard of the SONET Common Generic Criteria SONET to the SONET of the combination of U.S. Patent No.: 6,658,021 and Ohara in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 55, the combination of U.S. Patent No.: 6,658,021 and Ohara teach: the one or more devices of claim 53 and U.S. Patent No.: 6,658,021 teaches and channelized SONET data streams per claim 1

The combination of U.S. Patent No.: 6,658,021 and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

The SONET Common Generic Criteria teaches: optical carry rate in accordance with the SONET standard per Para 3 page 3-1.

It would have been obvious to add the optical carry rate of the SONET standard of the SONET Common Generic Criteria SONET to the SONET of the combination of U.S. Patent No.: 6,658,021 and Ohara in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 56, the combination of U.S. Patent No.: 6,658,021 and Ohara teach: the one or more devices per claim 53 and U.S. Patent No.: 6,658,021 teaches and POS tributary data streams per claim 1

The combination of U.S. Patent No.: 6,658,021 and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

The SONET Common Generic Criteria teaches: optical carry rate in accordance with the SONET standard per Para 3 page 3-1.

It would have been obvious to add the optical carry rate of the SONET standard of the SONET Common Generic Criteria SONET to the SONET of the combination of U.S. Patent No.: 6,658,021 and Ohara in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 57, the combination of U.S. Patent No.: 6,658,021 and Ohara teach: the one or more devices of claim 53 and U.S. Patent No.: 6,658,021 teaches and ATM tributary data streams per claim 1

The combination of U.S. Patent No.: 6,658,021 and Ohara do not expressly call for: optical carry rate in accordance with the SONET standard.

The SONET Common Generic Criteria teaches: optical carry rate in accordance with the SONET standard per Para 3 page 3-1.

It would have been obvious to add the optical carry rate of the SONET standard of the SONET Common Generic Criteria SONET to the SONET of the combination of U.S. Patent No.: 6,658,021 and Ohara in order to be standards compliant and build a system which is inoperable with legacy SONET systems

12. Claims 60-63 & 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No.: 6,658,021) in view of G.707

Referring to claim 60, U.S. Patent No.: 6,658,021 teaches the forwarding node of claim 59 and wherein the tributary data stream includes a point to point protocol (POS inherently includes PPP claim 8)

U.S. Patent No.: 6,658,021 does not expressly call for: DS tributary.

G.707 teaches: DS tributary (1544 per Pg 7) .

It would have been obvious to add the DS tributary of the G.707 to the PPP packet of U.S. Patent No.: 6,658,021 in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 61, U.S. Patent No.: 6,658,021 teaches: the forwarding node of claim 59 and channelized SONET data streams per col. 1 line 10 to col. 2 line 38

U.S. Patent No.: 6,658,021 does not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 of U.S. Patent No.: 6,658,021 in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 62, U.S. Patent No.: 6,658,021 teaches: the forwarding node of claim 59 and POS tributary data streams (claim 1)

U.S. Patent No.: 6,658,021 does not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of U.S. Patent No.: 6,658,021 in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 63, U.S. Patent No.: 6,658,021 teaches: the forwarding node of claim 59 and ATM tributary data streams per claim 3

U.S. Patent No.: 6,658,021 does not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of U.S. Patent No.: 6,658,021 in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 67, U.S. Patent No.: 6,658,021 teaches: the device of claim 65 and channelized SONET data streams per claim 1

U.S. Patent No.: 6,658,021 does not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of U.S. Patent No.: 6,658,021 in order to be standards compliant and build a system which is inoperable with legacy SONET systems.

Referring to claim 68, U.S. Patent No.: 6,658,021 teaches: the device of claim 65 and POS tributary data streams per claim 1

U.S. Patent No.: 6,658,021 does not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of U.S. Patent No.: 6,658,021 in order to be standards compliant and build a system which is inoperable with legacy SONET systems

Referring to claim 69, U.S. Patent No.: 6,658,021 teaches: the device of claim 65 and ATM tributary data streams per col. 1 line 10 to col. 2 line 38

U.S. Patent No.: 6,658,02 does not expressly call for: optical carry rate in accordance with the SONET standard.

G.707 teaches: optical carry rate in accordance with the SONET standard per pg 3, Pg 6, Pg 16, & Pg 21

It would have been obvious to add the optical carry rate of the SONET standard of the G.707 to the SONET of U.S. Patent No.: 6,658,021 in order to be standards compliant and build a system which is inoperable with legacy SONET systems

12. Claim 47 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5, & 8 of U.S. Patent No. 6,658,021 in view of Ohara (U.S. Patent No.: 6,314,097) further in view of McKeown (U.S. Patent No.: 6,647,019)

Referring to claim 47, the combination of U.S. Patent No. 6,658,021 in view of Ohara (U.S. Patent No.: 6,314,097) teach: the device of claim 46.

The combination of U.S. Patent No. 6,658,021 in view of Ohara (U.S. Patent No.: 6,314,097) do not expressly call for: teach: wherein the data stream is received over a single optical fiber

McKeown teaches: wherein the data stream is received over a single optical fiber (WDM with channels on an optical Fiber per col. 1 line 25 to 30)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the single optical fiber of McKeown to the system of the combination of U.S. Patent No. 6,658,021 and Ohara in order to achieve more capacity by sending multiple singles over a single fiber.

13. Claim 66 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5, & 8 of U.S. Patent No. 6,658,021 in view of McKeown (U.S. Patent No.: 6,647,019)

Referring to claim 66, U.S. Patent No. 6,658,021 teaches: the device of claim 65.

U.S. Patent No. 6,658,021 does not expressly call for: teach: wherein the data stream is received over a single optical fiber

McKeown teaches: wherein the data stream is received over a single optical fiber (WDM with channels on an optical Fiber per col. 1 line 25 to 30)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the single optical fiber of McKeown to the system of U.S. Patent No. 6,658,021 in order to achieve more capacity by sending multiple singles over a single fiber.

#### *Claim Rejections - 35 USC § 112*

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. Claims 49-51, 55-57, 61-63, 67-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claims 49 -51, 55-57, 61-63, & 67-69, these claims are directed to limitation perform in accordance with SONET standard. The use of "protocols" or "standards", protocols and standards change over time, hence, it is inappropriate to have the scope of a claim change with time. Since organizations implementing standards meet regularly and have the authority to modify standards, any connection a claim may have to these standards may varying scope over time. The other aspect arising from this is enablement. If the standard changes, the disclosure may no longer support the limitation. If the scope of the invention sought to be patented cannot be determined from the language of the claims, a second paragraph rejection is appropriate (In re Wiggins, 179 USPQ 421).

In order to overcome this rejection the applicant needs to provide a copy of the SONET standard as part of an IDS that predates applicant's priority date. The examiner also suggests that the applicant insert the date and version of the SONET standard in the claim language.

### ***Response to Arguments***

16. Applicant's arguments with respect to claims 46-69 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075.

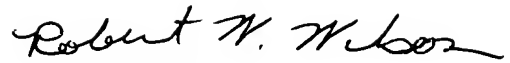
The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571/272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in cursive script, appearing to read "Robert W. Wilson".

Robert W Wilson  
Examiner  
Art Unit 2619

RWW  
11/19/07